<u>Approved by General Counsel</u>

TR-51 Meeting Report

Date: 4/12/11

Location: San Francisco, CA

Approved: 5/13/11

DRAFT REPORT
TIA TR-51 Smart Utility Networks
Tuesday, April 12, 2011

Presiding: Mike Lynch, MJ Lynch & Associates

1.   **Call to Order**

The meeting was called to order by Mike Lynch (MJ Lynch & Associates) at 9:06am PDT.

2.   **Facilitator's Introduction and Comments**

In his opening remarks Mike Lynch thanked the attendees and noted that the group would be holding elections and reviewing a technical presentation.

3.   **Attendee Introductions and E-Sign-In**

The attendees in the room and on the call introduced themselves. They were directed to use the e-roster systems to sign-in to the meeting. See Annex A for the list of attendees to this meeting.

4.   **Intellectual Property Rights**

The attendees were directed to note the IPR statement on the agenda and requested to make it known if there are any patents related to the work of the committee.

5.   **Review and Approve Agenda**

The draft agenda, distributed as contribution TR51-200110412-001r1 was reviewed and approved without objection.

As was noted on the agenda, any matters requiring a decision at this meeting will be decided by a simple majority of those present (one company, one vote). At the beginning of the 3rd meeting, normal procedures for quorum according to the TIA Engineering Manual will be followed.

6.   **Review and Approve Meeting Report**

The draft meeting report, distributed as contribution TR51-200110412-002, was reviewed and approved without objection.

7.   Leadership Elections

Stephanie Montgomery, TIA, stated that the Vice-Chair election will be held first and then the Chair election. There was discussion prior to this meeting to have a co-Vice-Chair function here to facilitate leadership coverage and interaction at TR-51 meetings.   It was agreed unanimously that co-Vice-Chairs would be welcomed by this group.

There were two candidates for the positions of Co-Vice-Chair, Phil Beecher, Beecher Communication Services and Hiroshi Harada, NICT. A call for additional nominees was made and none came forth. There being no additional candidates the committee voted unanimously to acclaim Phil Beecher and Hiroshi Harada as Co-Vice-Chairs.

Ms. Montgomery then ran the election for Chair. There was one candidate for Chair, Mike Lynch of MJ Lynch Associates. A call for additional nominees was made and none came forth. Mike Lynch was unanimously acclaimed as Chair of TR-51.

8.   Technical Contributions

As background for the discussion, Mike Lynch reviewed slide 7 from contribution TR51-20110215-003 which was introduced at the February meeting. This slide demonstrates a possible timeline for standards developed by TR-51 in four areas: Transport Layer, Network Layer, MAC (Medium Access and Control) Layer, and PHY (Physical) Layer.

Ben Rolf, Blind Creek, introduced contribution TR51-20110412-004 and walked through this presentation with the group. The presentation is based on a few basic concepts. First, these systems will be self-provisioning networks that could operate on 2.4/900/868MHz frequency bands. The MAC design will need to support channel hopping. There was some discussion about defining of channel vs. link and how the devices would communicate.

Phil Beecher provided a status report on what is going on with smart utility networks in IEEE 802.15.4g. That group plans to have sponsor ballot in July and should have a draft ready in November 2011. TR-51 would like to adopt portions of the IEEE 802.15.4g spec into their work. Mr. Lynch requested that Jeritt Kent and John Notor bring a contribution to this group addressing the relevant parts from the IEEE 802.15.4g PHY draft. Jeritt and John agreed to take this on and will provide a simple outline.

It was suggested that TR-51 form two Working Groups. One WG will discuss contributions on Layer 1 and the other, discuss contributions on Layer 2. It is expected that the further work on Layer 2 will be based on the document presented by Ben Rolfe. Cristina Siebert agreed to lead both groups at this time. It was mentioned that future agendas could have contributions organized by the layers they are seeking to address.

Octavio Lima, Ericson, presented a contribution (TR51-20110412-005) about the work in TR-50 and ETSI M2M. It was noted that at the joint meeting of TR-50 and ETSI M2M in March an agreement was made for TIA TR-50 to endorse the ETSI M2M standards. The meeting felt that TR-50 and the ETSI M2M work remain access agnostic. The contribution also contained suggested questions that TR-51 might like to be asking itself. It was noted during this discussion

that the previous technical presentation does not preclude other projects from coming to this group. In fact, TR-51 would like to remain architecture neutral and focus on the application and not the larger network.

9.   Other Business

Mike Lynch raised the issue liaisons to other organizations. Octavio Lima agreed to be the liaison between TR-51 and TR-50. He also agreed, along with Larry Taylor, DTC, to serve as liaisons between TR-51 and ETSI M2M. Phil Beecher, Beecher Communication Services, agreed to be the TR-51 liaison to the NIST SPIG group.

10.   Next Meeting

Mike Lynch introduced contribution TR51-20110412-003, a list of possible future meeting dates. The next meeting was scheduled for Friday, June 3rd in San Antonio, TX. The meeting after that will be held on Tuesday, September 6 in Seattle, WA. Both meetings are collocating with TIA TR-45.

11.   Adjournment

There being no further business, the meeting was adjourned at 11:46am EDT.

This meeting was conducted in accordance with the TIA Engineering Manual and Legal Guide.

Submitted by
Stephanie Montgomery, TIA

ANNEX A

Attendees to TR-51 April Meeting:

Attendee	Company / Representing
*Kent, Jeritt	C: Analog Devices, Inc.
*Beecher, Phil	C: Beecher Communications Consultants Ltd
*Rolfe, Benjamin	C: Blind Creek Associates
*Taylor, Larry	C: DTC (UK)
Lima, Octavio	C: Ericsson Inc.
*Lynch, Michael	C: MJ Lynch & Associates LLC
*Harada, Hiroshi[V]	C: NICT
Strassburger, Raymond[V]	C: Nortel Networks
*Ramasastry, Jay	C: Silver Spring Networks
*Seibert, Cristina	C: Silver Spring Networks
*Shah, Kunal	C: Silver Spring Networks
*Notor, John	C: Smart Utility Network Alliance
*MacDougall, Alan	C: TE Connectivity
Blum, Cheryl[V]	C: TIA
Montgomery, Stephanie	C: TIA
Kripalani, Anil[V]	C: WirefreeCom, Inc.
Chang, Kim	C: Huawei